STATE OF MARYLAND

DHMH

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Office of Preparedness & Response
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October 23, 2008
Public Health & Emergency Preparedness Bulletin: # 2008:42
Reporting for the week ending 10/18/08 (MMWR Week #42)

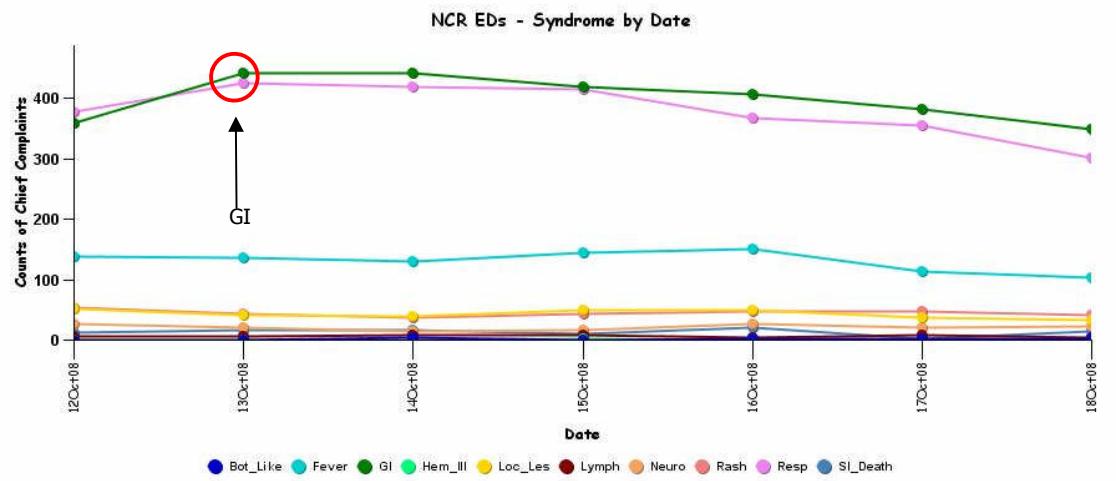
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

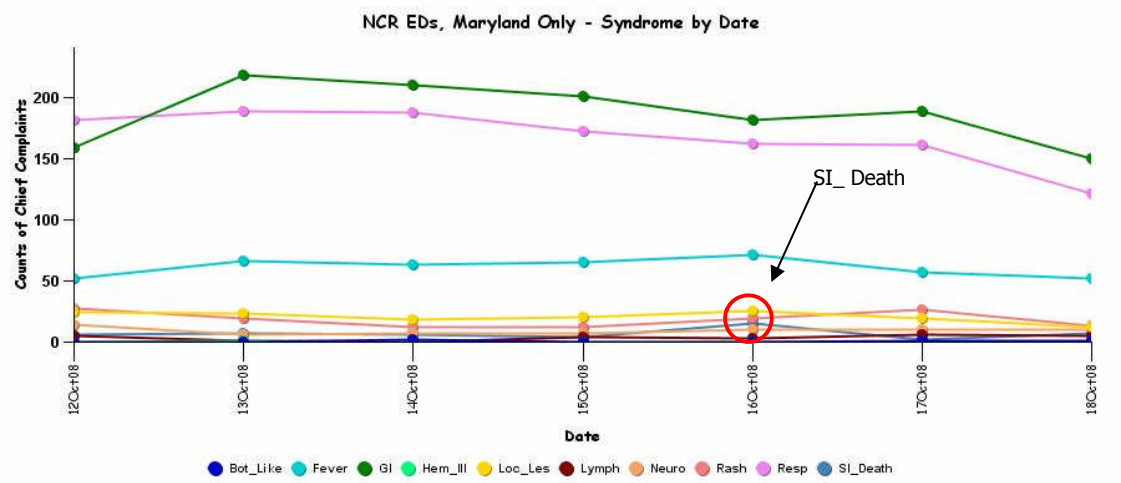
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

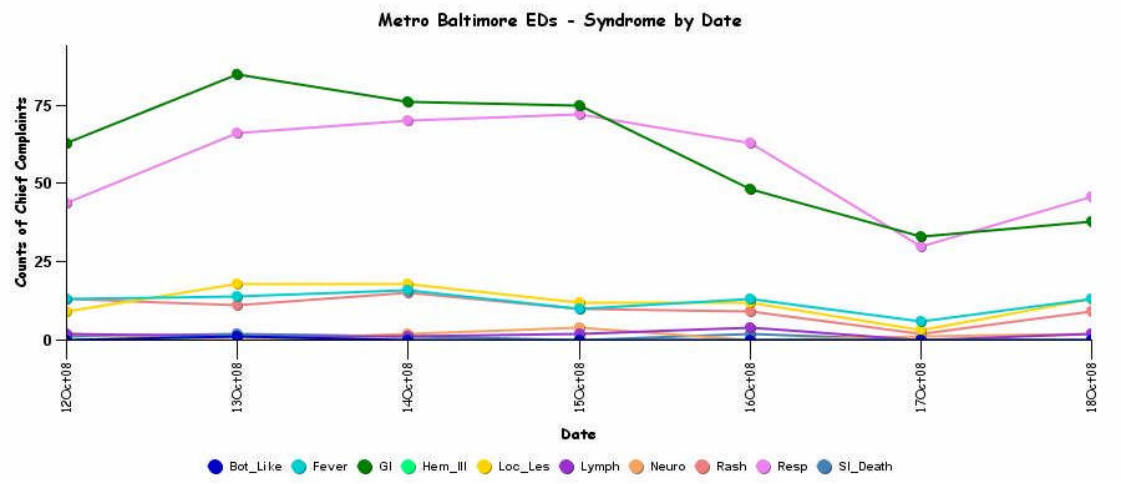
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system

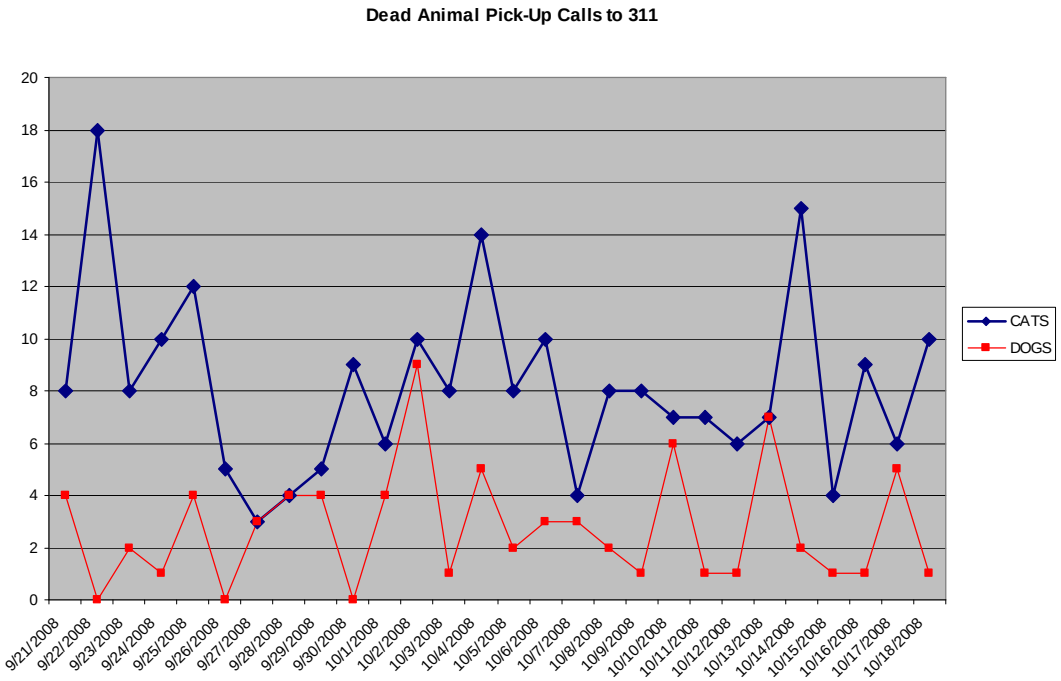


* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system



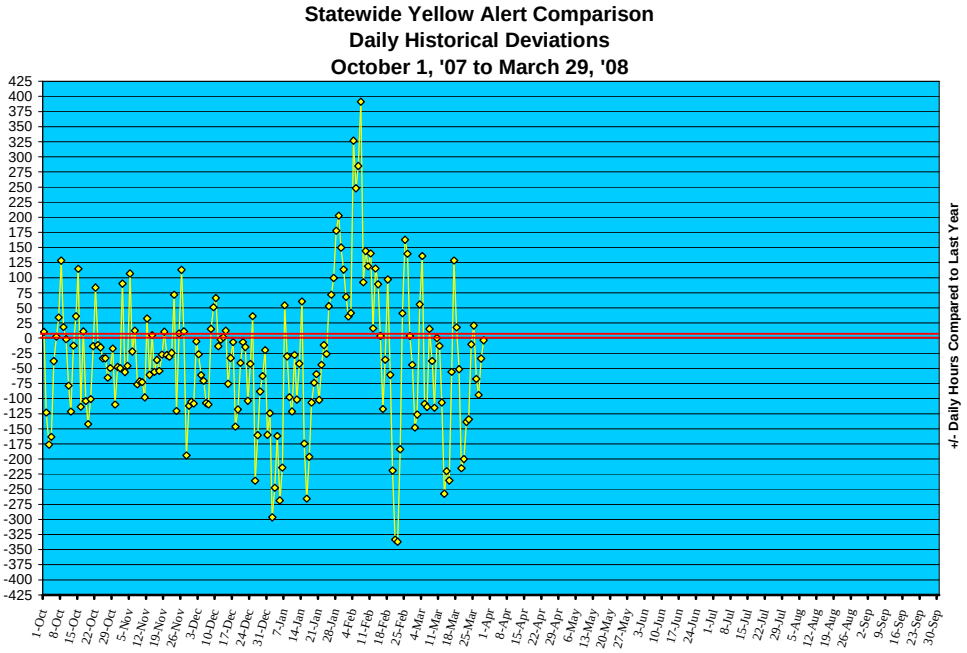
* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.
*Note: No new data available at this time.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in September 2008 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (Oct 12 - 18, 2008):	9	0
Prior week (Oct 5 – 11, 2008):	27	1
Week#42, 2007 (Oct 14 - 20, 2007):	13	0

OUTBREAKS: 2 outbreaks were reported to DHMH during MMWR Week 42 (Oct. 12- Oct. 18, 2008):

1 Foodborne Gastroenteritis outbreak
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant
1 Rash illness outbreak
1 outbreak of RASH illness associated with a School

MARYLAND SEASONAL FLU STATUS:

Seasonal Influenza reporting occurs October through May. There were no lab-confirmed cases of influenza reported to DHMH during Week 42.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

WHO update: As of September 10, 2008, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 387, of which 245 have been fatal. Thus, the case fatality rate for human H5N1 is about 63%.

NATIONAL DISEASE REPORTS:

E. COLI O157, UNIVERSITY STUDENTS - CALIFORNIA LETTUCE (California): 15 Oct 2008. Jennifer Holton, spokeswoman for the Michigan Department of Agriculture, said that based on shipping and delivery dates, illness onset dates and other traceback information investigators have determined that iceberg lettuce from California is believed to be the source of the outbreak [of _E. coli_ O157]. Holton said on 14 Oct 2008 that the food and drug branch of the California Department of Public Health has started its own investigation in that state. A spokesman for the California health department could not immediately be reached for comment. The Michigan Department of Community Health linked the outbreak to bagged, industrial-size packages of iceberg lettuce on 26 Sep 2008 and named Detroit processor Aunt Mid's as the distributor. However, Aunt Mid's was sourcing from multiple growers in multiple states, including California, when the outbreak started, and it was unclear at that time where the tainted product was sourced. Holton said on 14 Oct 2008 that it remained unclear where in the supply chain the product was contaminated. Dominic Riggio, Aunt Mid's president, said the company resumed processing iceberg lettuce 9 Oct 2008. Holton said that Aunt Mid's will test each lot of the product for 30 days and report the findings to the state department of agriculture, which also will perform random tests during that period. There have been 38 reported illnesses in Michigan and 21 hospitalizations. There also have been 9 illnesses reported in Illinois and 3 in Ontario. No deaths have been associated with the outbreak. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE, HUMAN, PRAIRIE DOGS (ARIZONA): 12 Oct 2008. A northeast Arizona man has contracted bubonic plague and health agencies are urging Four Corners residents to help prevent the spread of the disease. The Apache County, Ariz., man who contracted the disease began showing symptoms in late September, the Navajo Nation said, including a 103-degree fever, chills, diarrhea and groin tenderness. The man was responding to treatment and doing well Monday afternoon, said Jenny Notah, a spokeswoman for Navajo Area Indian Health Service. The Navajo Nation also said plague likely killed a number of prairie dogs east of Flagstaff, Ariz. There have been no recent reports of plague cases on the Utah side of the Four Corners. Humans can contract plague by touching bodily fluids of infected animals or after being bitten by fleas that have contracted it from infected rodents, according to the U.S. Department of Health and Human Services. In 2006, the disease was found in rodents in Mesa Verde National Park and Natural Bridges National Monument. No humans were infected, but Natural Bridges closed a campground until it determined there was no threat. Both venues were fully open Monday. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS:

E. COLI O157, RESTAURANT (CANADA): 16 Oct 2008. An _E. coli_ outbreak that may have sickened more than 50 people who ate at an Ontario Harvey's restaurant will grow in the coming days, health officials warned yesterday [15 Oct 2008] as they scrambled to determine the source of the contamination and who else may be at risk. 14 people were confirmed to have fallen ill from _E. coli_ O157:H7 bacteria after eating at a North Bay Harvey's franchise. Another 38 illnesses linked to the same restaurant are under investigation to determine whether they are the result of _E. coli_ contamination. But health officials fear that number could climb significantly because it can take several days for people to feel ill after coming in contact with _E. coli_. In addition, people who are ill could unwittingly infect family members and friends. A total of 19 people have been hospitalized since the outbreak began on the weekend [11-12 Oct 2008]. 9 remained in hospital yesterday [15 Oct 2008], but none have been admitted to the intensive care unit. The people affected range in age from 9 to 84. North Bay's health unit ordered the Harvey's restaurant on Algonquin Avenue to close this week once officials realized everyone who had fallen ill had eaten there. It's unclear how long it will remain closed, said Rick McNabb, president of Harvey's Canada. "We need to determine exactly what happened here before we even consider opening the restaurant," Mr McNabb said. "This is obviously a tough situation." While all of the cases of illness have been linked to one restaurant, it is possible the outbreak is part of a larger problem that could affect people in other communities, said Doug Powell, associate professor of food safety at Kansas State University. For instance, a product such as lettuce, which is usually shipped to food retailers across a large area, could be the source of contamination. "Just because it's a Harvey's, you can't assume it's the hamburger," Prof Powell said. "It could be a fresh product, something

that's not cooked and it could be distributed to other places." (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, SEROTYPE TYPHIMURIUM U292 (DENMARK): 15 Oct 2008. Danish officials have caught up with an outbreak of salmonellosis, which has been spreading since February 2008. Danish food safety officials have found salmonella in pork produced at the Horsens slaughterhouse run by Danish Crown. The bacteria were found in a consignment of meat that was intended for the Finnish and Swedish markets. Britta Wiander, head inspector of the import and market supervision unit of the Finnish Food Safety Authority (EVIRA), says that legislation protects Finland very well against tainted imported meat. "Before the meat is sent to Finland it must be checked for salmonella. A laboratory statement has to come with the meat," Wiander says. Finland has special permission from the European Union to implement tighter regulations than the rest of the EU. There is little salmonellosis in Finland, and most Finns who are infected with it catch the disease during travel abroad. The discovery at Danish Crown does not explain the whole epidemic, nor does it mean that Danish Crown would be the original source of the problem, it is most likely that the contamination occurred already before the animal came to the slaughterhouse. Danish Crown packs meats for export, so its meat cannot be responsible for the epidemic raging in Denmark, where more than 1000 people have been infected in 2008, and 6 have died. Denmark is the world's largest exporter of pork, but the Typhimurium U292 strain of _Salmonella_, which is the one that has been spreading in Denmark, has not been detected in other countries. Danish officials have been desperately looking for a source, going through refrigerators of those who are ill, checking their credit card records, and taking samples at various food processing plants. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (INDIA): 14 Oct 2008. Tests have confirmed that 4 patients have chikungunya and 2 dengue in Budge Budge and Bishnupur II blocks of South 24-Parganas. The 6 are from Moukhali village in South Bishnupur. Numerous others from the village show symptoms of these diseases with complaints of high fever, body and joint pain, vomiting, and rashes on their bodies. Though official figures put the number of ailing at 250-300, local leaders claimed at least 2500-3000 were suffering. The district's chief medical officer health (CMOH) Sachidananda Sarkar said, "More than 100 people have been admitted to the local Muchisa Hospital in Nodakhali." Others are admitted to nearby hospitals and to the only nursing home in the area. Hospitals are forced to turn away patients for the lack of beds. The authorities have set up 3 medical camps in the 2 blocks. Sarkar said the number of medical camps will be increased and more medical teams spread out in the villages and make door-to-door visits from Wednesday [15 Oct 2008]. "We are monitoring the situation and will take all necessary steps to tackle it," said Sarkar. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

UNDIAGNOSED FATALITIES – ARENAVIRUS IDENTIFIED (SOUTH AFRICA ex ZAMBIA): 13 Oct 2008. The results of tests conducted at the Centers for Disease Control in Atlanta (CDC), USA, and at the National Institute for Communicable Diseases of the National Health Laboratory Service in Johannesburg, provide preliminary evidence that the causative agent of the disease that has resulted in the recent deaths of 3 people in hospitals in Johannesburg, is a rodent-borne arenavirus related to the Lassa fever virus of West Africa. Further tests, to confirm the diagnosis by growing the virus in culture and to characterize it further, are in progress. It needs to be determined whether it is a previously unrecognized member of the arenaviruses, and what its distribution and reservoir host are. Arenaviruses cause chronic infection in wild rodents (multimammate mice) with excretion of virus in urine, which can contaminate human food or house dust. Arenaviruses have been found in southern African rodents in the past, but there has been no previous association with human disease. The virus associated with the present outbreak may prove to be a new member of the group. In the current outbreak there have been 3 deaths, the index case ex-Zambia and 2 persons who acquired disease after close contact in the nosocomial setting. A 4th patient, a nurse, who had close contact with the 2nd patient, has developed a febrile illness and thrombocytopenia, and has tested positive by PCR [polymerase chain reaction] for arenavirus. She is currently being treated with ribavirin. The efficacy of ribavirin has been documented in Lassa fever, but is unknown for the current virus. The incubation period for cases in the present cluster ranges from 7-13 days. There is a prodromal illness of about 7 days with myalgia, headache, diarrhoea, and a severe pharyngitis. This is followed by a more severe illness with moderate thrombocytopenia but no bleeding. Hepatic dysfunction with raised transaminases has typically occurred late in the course of disease. (Viral hemorrhagic fever is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, LIVESTOCK (IRAQ): 12 Oct 2008. The health minister in the Kurdish autonomous region said today [12 Oct 2008], 37 people have been infected by anthrax in northern Iraq in the country's 1st outbreak of the disease since the 1980s. The Iraqi health minister, Ziryan Othman, said the disease appeared to have been passed on from livestock. The 1st human case of the outbreak was discovered in remote Dahuk province last month [September 2008]. None of the reported cases had yet proven fatal, he said. The 37 cases in humans have all affected the patients' skin, rather than their lungs or internal organs, as occurs in more serious anthrax cases. Mr Othman said the authorities have ordered that infected animals be slaughtered and buried, while animals not yet infected should be vaccinated. "The health and agriculture ministries are trying to contain this disease, because if it is spread among animals and then is transferred to humans it will have a negative effect on the economy," he said. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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